

# Notice of Allowability

Application No.

09/817,439

Examiner

Kirsten S. Apple

Applicant(s)

WISE ET AL.

Art Unit

3693

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/16/07.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

This communication is in response to communication filed 5/16/07.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears on the attached sheets. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

### **Reasons for Allowance**

The following is an examiner's statement of reasons for allowance:

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest the limitation of independent claims. The Applicant has claims a method and computer system for reducing liquidity requirements.

Independent claim 1 discloses a method of reducing the liquidity requirement of asset backed commercial paper based on results of a simulation of the ratings of the underlining assets.

Independent claim 11 discloses a computer executable code for reducing the liquidity requirement of asset backed commercial paper based on results of a simulation of the ratings of the underlining assets.

Independent claim 12 discloses a computer readable medium for reducing the liquidity requirement of asset backed commercial paper based on results of a simulation of the ratings of the underlining assets.

Independent claim 13 discloses a programmed computer for reducing the liquidity requirement of asset backed commercial paper based on results of a simulation of the ratings of the underlining assets.

The following prior art references have been deemed most relevant to the allowed claim(s):

Field (US Pat. 6,073,104) teaches a system for recording and selling asset backed commercial paper conduits. The system generates statistical information including rating agencies and sponsors of the conduits. The information contains net collectible value matrix and collection histogram showing the timing of payments.

Emery et al. (article "The Measurement of Liquidity") teaches non-traditional liquidity measurements for credit evaluation. The paper proposes information on a firm's liquidity policy and liquidity position to obtain likelihood that a firm will become insolvent or no longer have funds to pay invoices. A stochastic process model is used to determine the liquidity position. The process measure relative liquidity across firms.

Makivic (US Patent 6,061,662) discloses a Monte Carlo system and method for pricing financial instruments (asset back commercial paper is a type of financial instrument.) The model uses probability distribution of the underlying securities. The statistical analysis uses historical data and implied volatility.

Claims 1-13 are allowed because Field, Emery et al and Makivic references as discussed above as the Closest Prior art of record fails to teach or suggest a method of **reduced liquidity levels that can reliably satisfy liquidity needs of asset backed commercial paper. Fields only teaches invoice record management of assets backed commercial paper but is silent about reducing liquidity requirements based on modeling. Emery only teaches calculating liquidity or insolvency of a firm but is silent about reducing the liquidity requirements of**

**asset backed commercial paper. The invention models the reduced liquidity requirements by simulating rate movements over time, including simulation the probability of draws, continuing draws and extent of draw amount for each of the underlying assets of the asset backed commercial paper. Neither Fields, Emery or Makivic teach estimating a reduced liquidity level.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Contact Information***

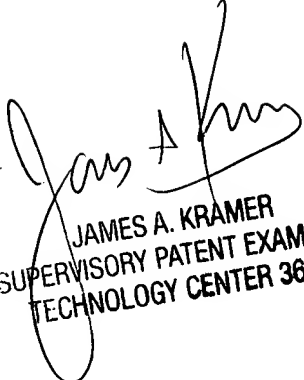
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten S. Apple whose telephone number is 571.272.5588. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-272-6126.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3693

ksa

 7/23/07  
JAMES A. KRAMER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

Examiners amendment.

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**FAX**

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**PAGES (INCLUDING COVER):**       8

**ORIGINAL TO FOLLOW IN MAIL:**      No

**FROM**           **NAME:**                           Yisun Song, Reg. No. 44,487  
                 **DIRECT DIAL:**           202-955-1966

**MESSAGE**       Per your request, here are the proposed amendments for Application Serial No.  
09/817,439. Please let me know if you have any questions. Thank you.

**IF PROBLEM WITH TRANSMISSION, PLEASE CONTACT OPERATOR AT 202 • 955 • 1500 .**

**OPERATOR**

**DATE:**                               July 19, 2007  
**TIME:**  
**CLIENT/MATTER NAME:**           JP Morgan Chase  
**CLIENT/MATTER NO.:**           72167.000565

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Proposed Amendments

1 (**Currently Amended**). A method for managing liquidity requirements of asset backed commercial paper, the method comprising the steps of:

identifying a full liquidity commitment for a financial instrument of at least one financial institution wherein the financial instrument is guaranteed by a plurality of assets;

determining a rating for each of the plurality of assets guaranteeing the financial instrument for a predetermined period of time wherein the rating provides an indication of creditworthiness of an issuer of each asset;

determining a rating transition probability for each of the plurality of assets for the predetermined period of time based at least in part on statistics indicating a likelihood of a rating transition based on historical data;

determining whether a draw event occurred for a time period prior to the predetermined time period;

determining a probability of a continuing draw event over the predetermined time period, if the draw event is determined;

determining a probability of a new draw event for a time period after the predetermined time period, if no draw event is determined;

wherein the steps of determining a rating, determining a rating transition probability, determining whether a draw event occurred, determining a probability of a continuing draw event and determining a probability of a new draw event are performed for a plurality of predetermined time periods;

~~performing to perform~~ a simulation using one or more random variables thereby  
~~predicting to predict~~ one or more liquidity funding needs associated with the plurality of assets;  
and

estimating a reduced liquidity level for the financial instrument that is less than the full  
liquidity commitment for the financial instrument wherein the reduced liquidity level satisfies the  
one or more liquidity funding needs as determined by the simulation.

**2 (Previously Presented).** A method according to claim 1,  
wherein the financial instrument comprises a commercial paper.

**3 (Previously Presented).** A method according to claim 1,  
wherein the rating transition probability is based on a ratings transition matrix.

**4 (Previously Presented).** A method according to claim 1, wherein the at least one  
financial institution further comprises a plurality of banks, wherein the simulation further  
comprises the step of determining probabilities of default by the plurality of banks.

**5 (Previously Presented).** A method according to claim 1, wherein the assets  
guaranteeing the financial instrument are correlated, wherein the simulation further comprises  
the step of creating a virtual portfolio of uncorrelated assets, which model the assets  
guaranteeing the financial instrument.

**6 (Previously Presented).** A method according to claim 1, wherein the assets



guaranteeing the financial instrument are correlated, wherein the simulation further comprises the steps of:

- determining a diversity score for the assets; and
- determining characteristics of the assets.

**7 (Canceled).**

**8 (Previously Presented).** A method according to claim 1, wherein the step of determining a rating transition probability considers one or more characteristics of the assets.

**9 (Previously Presented).** A method according to claim 1, wherein the at least one financial institution further comprises a plurality of banks, the method further comprising allocating the reduced liquidity level among the plurality of banks.

**10 (Previously Presented).** A method according to claim 9, wherein the reduced liquidity level is a percentage of the full liquidity commitment and the allocation is substantially the same percentage for each of the plurality of banks.

**11 (Currently Amended).** Computer executable software code transmitted as an information signal, the code for managing liquidity requirements of asset backed commercial paper, the code comprising:

- code to identify a full liquidity commitment for a financial instrument of at least one financial institution wherein the financial instrument is guaranteed by a plurality of assets;

code to determine a rating for each of the plurality of assets guaranteeing the financial instrument for a predetermined period of time wherein the rating provides an indication of creditworthiness of an issuer of each asset;

code to determine a rating transition probability for each of the plurality of assets for the predetermined period of time based at least in part on statistics indicating a likelihood of a rating transition based on historical data; and

code to determine whether a draw event occurred for a time period prior to the predetermined time period;

code to determine a probability of a continuing draw event over the predetermined time period, if the draw event is determined;

code to determine a probability of a new draw event for a time period after the predetermined time period, if no draw event is determined;

wherein the code to determine a rating, the code to determine a rating transition probability, the code to determine whether a draw event occurred, the code to determine a probability of a continuing draw event and the code to determine a probability of a new draw event are executed for a plurality of predetermined time periods;

code to perform a simulation using one or more random variables thereby predicting to  
~~predict~~ one or more liquidity funding needs associated with the plurality of assets; and

code to estimate a reduced liquidity level for the financial instrument that is less than the full liquidity commitment for the financial instrument wherein the reduced liquidity level satisfies the one or more liquidity funding needs as determined by the simulation.

12 (**Currently Amended**). A computer-readable medium having computer executable software code stored thereon, the code for managing liquidity requirements of asset backed commercial paper, the code comprising:

code to identify a full liquidity commitment for a financial instrument of at least one financial institution wherein the financial instrument is guaranteed by a plurality of assets;

code to determine a rating for each of the plurality of assets guaranteeing the financial instrument for a predetermined period of time wherein the rating provides an indication of creditworthiness of an issuer of each asset;

code to determine a rating transition probability for each of the plurality of assets for the predetermined period of time based at least in part on statistics indicating a likelihood of a rating transition based on historical data; and

code to determine whether a draw event occurred for a time period prior to the predetermined time period;

code to determine a probability of a continuing draw event over the predetermined time period, if the draw event is determined;

code to determine a probability of a new draw event for a time period after the predetermined time period, if no draw event is determined;

wherein the code to determine a rating, the code to determine a rating transition probability, the code to determine whether a draw event occurred, the code to determine a probability of a continuing draw event and the code to determine a probability of a new draw event are executed for a plurality of predetermined time periods;

code to perform a simulation using one or more random variables thereby predicting to  
~~predict~~ one or more liquidity funding needs associated with the plurality of assets; and

code to estimate a reduced liquidity level for the financial instrument that is less than the full liquidity commitment for the financial instrument wherein the reduced liquidity level satisfies the one or more liquidity funding needs as determined by the simulation.

13 (**Currently Amended**). A programmed computer for managing liquidity requirements of asset backed commercial paper, comprising:

a memory having at least one region for storing computer executable program code; and  
a processor for executing the program code stored in the memory; wherein the program code comprises:

code to identify a full liquidity commitment for a financial instrument of at least one financial institution wherein the financial instrument is guaranteed by a plurality of assets;

code to determine a rating for each of the plurality of assets guaranteeing the financial instrument for a predetermined period of time wherein the rating provides an indication of creditworthiness of an issuer of each asset;

code to determine a rating transition probability for each of the plurality of assets for the predetermined period of time based at least in part on statistics indicating a likelihood of a rating transition based on historical data; and

code to determine whether a draw event occurred for a time period prior to the predetermined time period;

code to determine a probability of a continuing draw event over the predetermined time period, if the draw event is determined;

code to determine a probability of a new draw event for a time period after the predetermined time period, if no draw event is determined;

wherein the code to determine a rating, the code to determine a rating transition probability, the code to determine whether a draw event occurred, the code to determine a probability of a continuing draw event and the code to determine a probability of a new draw event are executed for a plurality of predetermined time periods;

code to perform a simulation using one or more random variables thereby predicting to  
~~predict~~ one or more liquidity funding needs associated with the plurality of assets; and

code to estimate a reduced liquidity level for the financial instrument that is less than the full liquidity commitment for the financial instrument wherein the reduced liquidity level satisfies the one or more liquidity funding needs as determined by the simulation.

14-44 (Withdrawn)